

## **The South Green Rice Genome Hub**

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### **Abstract Text:**

We have developed the Rice Genome Hub (<https://rice-genome-hub.southgreen.fr>), an integrative genome information system that allows centralized access to genomics and genetics data, and analytical tools to facilitate translational and applied research in rice.

Rice is the world's most consumed staple food, especially in Asia. It is also one of the most cultivated crop with maize and wheat. The Hub currently contains seven annotated genome sequences of *Oryza sativa* (Asian rice), and one of *Oryza glaberrima* (African rice).

The hub is built using the the Content Management System Drupal with the Tripal module that interacts with the Chado database. We opted for GMOD components that are open source, modular, portable and benefiting from a large community support in which we have been involved. The Hub interface provides several functionalities (Blast, DotPlots, Gene Search, JBrowse, Primer Blaster, Primer Designer) to make it easy for querying, visualizing and downloading research data.

We also plugged in-house tools developed by the South Green bioinformatics platform such as SNiPlay (detection and analyses of SNPs), Gigwa (filtering on genomic variations), daTALbase (exploration of data related to Xanthomonas TAL effectors), and DiffExDB (differential expression analysis).